

*Amendments to the Claims*

The listing of claims will replace all prior versions, and listings, of claims in the application.

*Listing of Claims*

1           1. (Currently Amended) A process for the stimulation of production of extracellular  
2           dermal matrix proteins in human tissue which comprises simultaneously delivering to said  
3           tissue ultrasound and electrical energy in an amount sufficient for the stimulation of  
4           production of extracellular dermal matrix proteins in human tissue;

5           wherein a current of said electrical energy is about 100 microamps; and

6           wherein said ultrasound is provided at a frequency in a range of about 1 to about 4  
7           megahertz.

1           2. (Original) A process according to claim 1 wherein said electrical energy is a low  
2           energy micro-amperage sufficient to stimulate the production of polypeptide collagen and  
3           said ultrasound is such that a mechanical pressure gradient is created in the cells that  
4           produces specific resilient collagen and elastin.

1           3. (Original) A process according to claim 2 wherein the wave form of said  
2           electrical energy is composed of a twin-peaked, unidirectional, capacitors-discharged, high  
3           potent wave form with low energy.

1                   4. (Original) A process according to claim 3 wherein there is employed a voltage  
2                   in the range of from about 1 to about 500 volts.

1                   5. (Original) A process in accordance with claim 4 wherein there is employed a  
2                   voltage in the range of about 20-150 volts.

6. (Canceled)

1                   7. (Original) A process according to claim 2 wherein said electrical energy is  
2                   provided at a pulse frequency in the range of from about 5 pulses per second to about 105  
3                   pulses per second.

8. (Canceled)

1                   9. (Original) A process according to claim 2 wherein said ultrasound is provided at  
2                   an energy in the range of about 0.1-0.5 watts per squared centimeter.

1                   10. (Original) A process according to claim 9 wherein said ultrasound energy is 0.3  
2                   watts per squared centimeter.

1                   11. (Original) A process according to claim 2 wherein said ultrasound is pulsed.

1                   12. (Original) A process according to claim 2 wherein said ultrasound is delivered  
2 in a continuous manner.

1                   13. (Original) A process in accordance with claim 2 wherein the ultrasound in  
2 synchronization with the electrical energy is modulated from about a 5% duty cycle to a 50%  
3 duty cycle and back to a 5% duty cycle.

1                   14. (Currently Amended) A process for the stimulation of the natural healing  
2 processes in human skin tissue which comprises creating a wound in the dermal layer of said  
3 skin tissue and thereafter simultaneously delivering to said skin tissue ultrasound and  
4 electrical energy in an amount sufficient to stimulate natural healing processes in said skin  
5 tissue;

wherein a current of said electrical energy is about 100 microamps; and

wherein said ultrasound is provided at a frequency in a range of about 1 to about 4  
megahertz.

1           15. (Original) A process according to claim 14 wherein said wound is created in the  
2           dermal layer of skin with the avoidance of removal or disruption of the stratum corneum or  
3           epidermis.

1           16. (Original) A process according to claim 14 wherein the simultaneous delivery  
2           of said ultrasound and electrical energy is within 24 hours of the creation of said wound in  
3           the dermal layer of said skin tissue.

17. (Canceled)

1           18. (Original) A process according to claim 14 wherein said ultrasound is provided  
2           at an energy in the range of about 0.1-0.5 watts per squared centimeter.

1           19. (Original) A process according to claim 18 wherein of said ultrasound energy  
2           is about 0.3 watts per squared centimeter.

1           20. (Original) A process according to claim 14 wherein said electrical energy is  
2           provided at pulse frequency in the range of from about 5 pulses per second to about 105  
3           pulses per second.

1           21. (Original) A process according to claim 14 wherein said electrical energy is a  
2           low energy micro-amperage sufficient to stimulate the production of polypeptide collagen  
3           and said ultrasound is such that a mechanical pressure gradient is created in the cells that  
4           produces specific resilient collagen and elastin.

1           22. (Original) A process according to claim 14 wherein said ultrasound is pulsed.

1           23. (Original) A process according to claim 14 wherein said ultrasound is delivered  
2           in a continuous manner.

1           24. (Original) A process in accordance with claim 14 wherein the ultrasound in  
2           synchronization with the electrical energy is modulated from about a 5% duty cycle to a 50%  
3           duty cycle and back to a 5% duty cycle.

1           25. (Original) A process in accordance with claim 14 wherein said wound is  
2           accomplished by any modality having the ability to penetrate the skin to the dermal tissue  
3           without disruption, damaging or exfoliating any of the stratum corneum or epidermal tissue.

1           26. (Original) A process in accordance with claim 14 wherein the skin tissue is  
2           subjected to phonophoresis whereby a subsequent blended, modulated ultrasound and

3           electrical energy is employed to enhance the delivery and penetration of topical creams or  
4           gels that contain collagen stimulating ingredients.

1           27. (Original) A process in accordance with claim 26 wherein following  
2           phonophoresis the stratum corneum of the skin is subjected to mechanical exfoliation.

1           28. (Original) A process in accordance with claim 27 wherein said mechanical  
2           exfoliation is carried out so as to systematically remove upper layers of tissue.